

Abstract of the Disclosure

Apparatus and process for creating micro bubbles in a liquid using cavitation are provided. The apparatus includes a rod, cylinder, multi-vanes helical shape or tube with an irregular circumference attached to a drive shaft having a first end and a second end. The first end is coupled to a selectively rotatable power source. The irregular circumference consists of multiple facets having high and low points or areas such that at sufficient angular velocities cavitation zones are created in the liquid following behind each high point. When a gas is supplied to these cavitation zones, the cavitation collapse creates great numbers of micro bubbles which are propelled into the surrounding liquid. Because of their high surface area to volume ratio, these micro bubbles are effective in the transfer of gases such as air and oxygen to a liquid for such purposes as wastewater treatment, aquiculture and gas or stripping of volatile compounds.